A VISIT TO EGYPT.

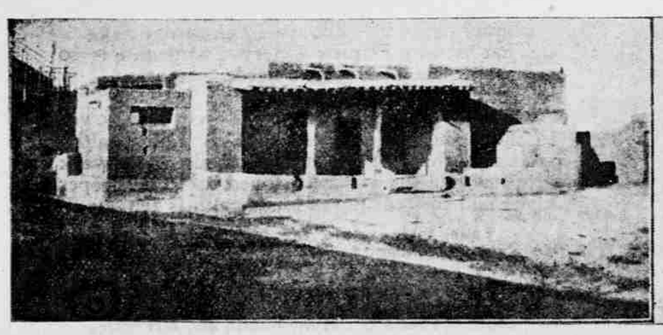
THE LATE KHALIFA'S WATER CARRIER.

Who was found lying across his master's dead body after the battle of Omdurman. He is now a servant to an officer at Khartoum.

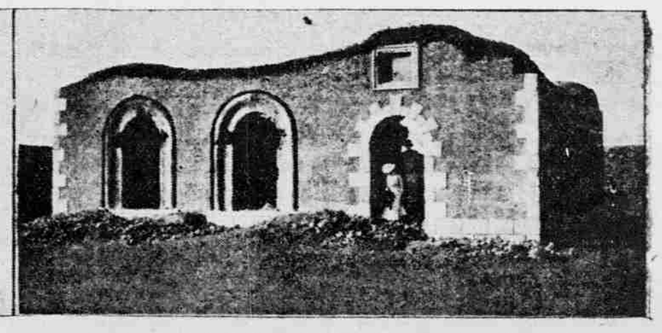
The popularity of Egypt as a winter resort has become so great of recent years that the Riviera hotel-keepers are said to be seriously concerned at the threatened loss of trade. And yet, though Cairo be full, there is no lack of visitors to Nice, Cannes, Mentone, and the Italian Riviera; for many people stay on the Cote d' Azur on the way to the land of the Pharaohs. Egypt is more sought for than ever this year, because of the visit of the Duke and Duchess of Connaught, who arrive at Cairo, on the return journey from Khartoum, on the 17th inst. The Duke and Duchess of Devonshire have just left for the opening of Parliament; but others less concerned with fiscal problems remain on to enjoy the pleasures of winter in the shade of the Pyramids. Omdurman and Khartoum are now within easy reach of London, thanks to the excellent arrangements of the railways; and there is much to be seen of interest, as the photographs on this page show. Meanwhile for those less energetic or less able to bear the strain of journeying so far South, there is a never-ending pleasure in watching from Shepheard's Hotel the busy vari-coloured crowd passing to and fro, some crying their wares, some merely observing the Frankish men and women who have come out to bask in the sun that they never see at home. English and Egyptian uniforms are to be seen side by side. Lord and Lady Cromer entertain at the British Agency, and the Khedive's Ball this year was notable for the performance of a waltz written by the Khedive himself, which showed considerable musical ability. Over 4,000 guests were bidden to this function, which marks the height of the Cairo season, though, of course, Egypt is crowded until March is well advanced.

THE GORDON STATUE AT KHARTOUM.

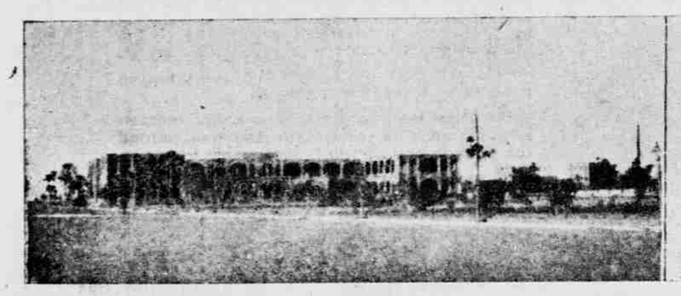
This memorial was shown to Londoners for a few weeks in St. Martin's Lane before being sent to the Soudan.



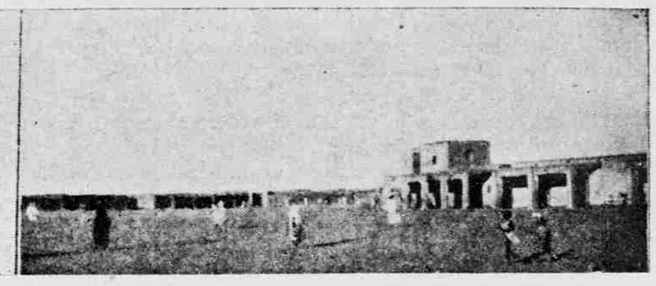
THE KHALIFA'S HOUSE, OMDURMAN.



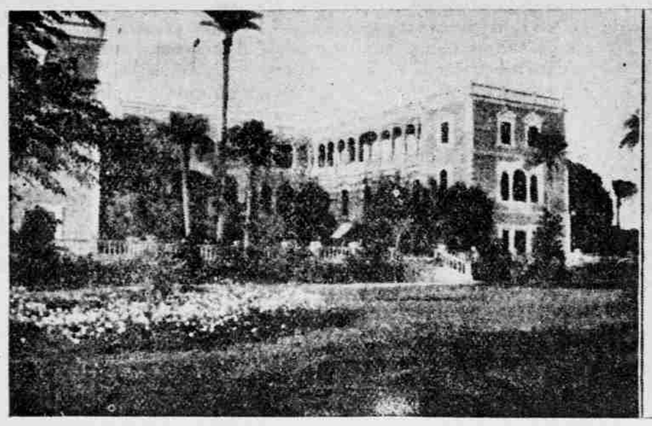
THE MAHDI'S TOMB AS IT IS TODAY.



THE WAR OFFICE AND PALACE, KHARTOUM.



MARKET PLACE, OMDURMAN.



THE PALACE, KHARTOUM, FROM THE GARDENS.

The center pole is used for flying the Royal Standard, the other two fly the British and Turkish flags.

THE HOTEL AND LANDING PLACE, WADY HALFA.

A favorite stopping place on the Nile journey.

THE MYSTERY OF SLEEP

"Blessed be the man," said Sancho Panza, "who first invented sleep. It covereth a man like a cloak;" but the phrase says more for the Governor of Barataria's gratitude than for his powers of observation. A cloak does not descend upon us at inconvenient times of its own accord, nor does it leave us suddenly when we most desire its presence. Neither does it return to us periodically with such persistence that, it has been calculated, we spend one third of our whole lives in sleep. If we look for further holes in the analogy, we might find them in the fact that sleep seems to be the peculiar appanage of the beginning and end of life, so that both children and old people sleep considerably more than the middle aged. Yet little is really known about sleep, and Mme. de Manaceine, the talented Russian lady who has collected many curious facts on the subject, has to confess that it has hitherto engaged the attention of physiologists to a less extent than almost any other vital phenomenon. Let us watch now the house dog—the cat, besides being an unsympathetic subject for scientific experiment, is so used to "playing possum" that it is not easy to say whether she is asleep or awake—preparing himself for a nap in front of the fire. Sometimes he yawns, sometimes he stretches himself, both of which actions have a physiological meaning; then he turns round three times in the same spot, which is said to be a reminiscence of the time when it was necessary to brush away the long grass and to search the "yard" thus made for snakes and scorpions. But always, when he has finished these preliminaries, he throws himself down on his side with outstretched head, legs and tail.

Looking at him carefully, you notice that this attitude is contrived so as to repose at once all the muscles used in locomotion or in a standing attitude, while at the same time it allows the air to pass freely into his lungs with as few turns, and, therefore, as little expense of energy as possible. Then he shuts both eyes and mouth, so as to shut out communication with the external world, and, now his deeper and slower breathing tells us that sleep has begun. Yet in this stage he is easily awakened. Call him, and he jumps to his feet without a sign of having to "shake off" sleep, and the same effect can, until he gets used to the trick, be produced by making noises suggesting the scratching and gnawing of a rat. Soon, however, this stage passes. As his sleep becomes sounder—a state that may sometimes be induced by tickling or stroking the soles of his feet—his limbs often begin to twitch with a regular motion, and he will sometimes even utter low cries as if in chase. Evidently he is dreaming of his natural pursuit of hunting, and, like Mr. Kipling's Bruggiesmith, in his magnificent mind is furiously running. But, let him alone and keep quiet, and cries and twitches alike grow still. The sleep has passed into its third and deepest stage, and from this it requires an appreciable effort to arouse him. When he does awake he will probably be found heavy and languid, will stretch himself strongly, and will take two or three minutes before he resumes his usual alertness. What now has taken place, as we may say, inside the dog, to bring about these changes of appearance and function. Thanks to the observation of cases where either by the operation known as trephining, or by gunshot wounds, some portion of the skull has been removed, we know that during sleep the brain becomes pallid, and almost discharged of blood. Also the beating of the heart gets slower and less energetic, and the respiration, or, what is the same thing, the rate of exchange of the inbreathed oxygen for the expelled carbonic acid, decreases, so that the percentage of the latter falls from 58 to 42.

Yet this in itself does not account for all the phenomena. The blood departing from the brain only goes to give increased activity to vital processes elsewhere. The skin becomes more active—whence our increased liability to get chilled during sleep—the digestion goes on with greater rapidity, and although heart and lungs, as we have seen, do not work at the same pace as in our waking moments, it would be a bad thing for the sleeper if either organ stopped for one second in its regular and ordered toil. Neither can we say that there is any arrest of what are called the "higher" functions of the brain. Flash a light in a sleeper's eyes, and, even if he does not wake with a start, he will at least move uneasily, thereby showing that the retinal activity of the eye is unchanged, while a bad smell will often have similar effects. The sense of touch retains its sensitiveness, so that a hand laid ever so gently upon the shoulder will awaken us, while the powers which are within the veil of sense are apparently not even dulled. The nursing mother, says Mme. de Manaceine, however fast asleep she may be, always remains alive to the slightest movement on the part of her infant.

That people have sometimes completed trains of thought or calculation in sleep is notorious, even without the classic case of Coleridge and Kubla Khan, while everybody who chooses to set himself seriously to the task can acquire the habit of waking at any specified hour. Clearly, therefore, neither the attention nor the will share in any but an imperfect manner in the sleep of the body. The only mental faculty of which the sleeper suffers the temporary loss seems to be that of consciousness. What now, is the cause of this phenomenon which play so large a part in our lives? Up to a short time ago no answer could have been suggested to the question, but now the neuronic theory, with which newspaper readers should, by this time be familiar, has given us at any rate a working hypothesis to fit the facts. M. Mathieu Duval has shown with much skill how probable it is that the tentacles or lateral prolongations of the neurones of the sleeping brain droop and retract like those of the sea anemone when the water recedes from it. Hence they are no longer in free communication with each other, and we thus lose that faculty of association and comparison which goes to make up consciousness. But, it should be noted, not all the neurones sleep at one time. For sleep, which, as we know from the example of daisies and other flowers extends to the vegetable world as well as to the animal, is itself a reflex action brought about by necessity in the first place, and perpetuated by heredity. The blood leaves the brain at regular times, as M. Claparede and others have shown, not so much because its functions are exhausted, as to prevent them from becoming exhausted. Now, the consciousness is kept alive during the whole of our waking hours, and therefore requires a rest to enable it to regain its pristine vigor more than any other faculty.

The same cannot be said of functions like the attention and the will, which are only exercised at irregular intervals, and which, therefore, can well remain on guard while the others sleep. Mr. Wells's suggestion that sleep is dispensed with by ants is negatived by the researches of M. Pictet, but it is, perhaps his millennial vision that has led to the formation in America of a club which pledges its members not to sleep more than four hours a night, all told. As individual needs in all cases differ, this is about as sensible as if every member should agree to wear boots only 10 inches long; but there can be little doubt that excessive sleep has an injurious effect on the organism. The muscular strength is less on waking than that before sleep—as can be proved by the measuring instrument called the dynamometer—and does not fully recover for two or three hours. Hence, too much sleep in time leads to the permanent impairment of the muscles, and no doubt of the other vascular tissues as well. Luckily this supplies us with an easy method of finding out whether we sleep too long.

If, on waking, the eyelids of a healthy person not exposed to accidents like excessive eye strain, bad air or constant cigarette smoke, remain for some time swollen and red, he may be sure that he would do better with less of the "balmy sleep," which is, in moderation, "nature's sweet restorer."—Chicago Tribune.